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EXAMINER

NGUYEN, THU HA T

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/746,677

Applicant(s)

OLSEN, GREGORY P.

Examiner

Thu Ha T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-24 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-18 are presented for examination.
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicants' cooperation is required in correcting any errors of which Applicants may be aware in the specification.

Election/Restrictions

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-18, are drawn to a method and program for dividing a set of target devices into a subsets of target devices and varying the timing with which the message is communicated to the respective subsets of target devices, classified in class 709, subclass 228.
- II. Claims 19-24, are drawn to a method and program for receiving a message, the message having a bins value and a hashing value; performing a hashing function and responding to the message if the hash result equal the hash value, classified in class 707, subclass 10.

4. The invention are distinct each from the other because of the following reasons: The inventions are distinct, each from the other because of the following reasons:

5. Inventions I and II are disclosed as different combinations, which are not connected is design, operation or effect. Theses combinations are independent if it can be shown that (1) they are not disclosed as capable of use together, (2) they have different modes of operation, (3) they have different functions, or (4) they have different effects (MPEP. 806.04, MPEP. 808.01). In the instant case, invention I is directed to a method and program for dividing a set of target devices into a subsets of target devices and varying the timing with which the message is communicated to the respective subsets of target devices. The invention II is directed to a method and program for receiving a message, the message having a bins value and a hashing value; performing a hashing function and responding to the message if the hash result equal the hash value. Therefore, inventions I and II have different functions and they have different effects.

6. These inventions are distinct for the reason given above and the search required for each Group is different and not co-extensive for examination purpose. For example, the searches for the two inventions would not be co-extensive because these groups would required different searches on PTO's classification subclass as following:

- (a) The Group I search (claims 1-18) would required use of search Class 709, subclass 228 (not require for the invention II).
- (b) The Group II search (claims 19-24) would require use of search class 707, subclass 10 (not require for the invention I).

7. During a telephone conversation with Applicants' Representative, Mrs. Paul A. Mendonsa (Reg. No. 42,879) on October 28, 2003 a provisional election was made without traverse to prosecute the invention of group I, claims 1-18. Affirmation of this election must be made by applicant in replying to this Office action. Claims 19-24 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 4, 7, 10, 13, and 16 recite the limitation "the timing " in the claimed language. Claims 2-3 and 11-12 recite the limitation "determining a set of target devices " in the claimed language. There is nowhere in independent claims teach the step of determining a set of target devices. Claims 5-6, 8-9, 14-15, and 17-18 recite the limitation "the sequences of instructions " in the claimed language. There is nowhere in independent claims teach the sequences of instructions. There is insufficient antecedent basis for these limitations in these claims.

Claims 1, 4, and 7 recited the limitation "the subset to which a particular device belongs is determined based on the number of subsets of target devices that is unclear. Applicant is required to explain, specify more in the claimed language.

Summary of the invention is missing.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. Claims 1, 4, 7, 10, 13, and 16 are rejected under 35 U.S.C. § 102(e) as being anticipated by **Yuasa et al.**, (hereinafter Yuasa) U.S. Patent No. **6,085,238**.

12. As to claim 1, **Yuasa** teaches the invention as claimed, including a method comprising:

dividing a set of target devices to which a message is targeted into a number of subsets of target devices, wherein the subset to which a particular device belongs is determined based on an identifier of the device and the number of subsets of target devices (abstract, figure 1, col. 8 lines 40-col. 10 lines 67, col. 17 lines 20-col. 18 lines 56, col. 45 lines 59-col. 48 lines 10); and

varying the timing with which the message is communicated to the respective subsets of target devices (col. 17 lines 49-54, col. 19 lines 7-col. 21 lines 51).

13. As to claim 4, **Yuasa** teaches the invention substantially as claimed, including an article comprising a machine-accessible medium to provide machine readable instructions that, when executed, cause one or more electronic systems to:

divide a set of target devices to which a message is targeted into a number of subsets of target devices, wherein the subset to which a particular device belongs is determined based on an identifier of the device and the number of subsets of target devices (abstract, figure 1, col. 8 lines 40-col. 10 lines 67, col. 17 lines 20-col. 18 lines 56, col. 45 lines 59-col. 48 lines 10); and

vary the timing with which the message is communicated to the respective subsets of target devices (col. 17 lines 49-54, col. 19 lines 7-col. 21 lines 51).

14. As to claim 7, **Yuasa** teaches the invention substantially as claimed, including an electronic data signal embodied in a data communications medium shared among a plurality of network devices comprising sequences of instructions that, when executed, cause one or more electronic systems to:

divide a set of target devices to which a message is targeted into a number of subsets of target devices, wherein the subset to which a particular device belongs is determined based on an identifier of the device and the number of subsets of target devices (abstract, figure 1, col. 8 lines 40-col. 10 lines 67, col. 17 lines 20-col. 18 lines 56, col. 45 lines 59-col. 48 lines 10); and

vary the timing with which the message is communicated to the respective subsets of target devices (col. 17 lines 49-54, col. 19 lines 7-col. 21 lines 51).

15. As to claim 10, **Yuasa** teaches the invention substantially as claimed, including a method comprising:

dividing a set of target devices to which a message is targeted into multiple subsets of target devices, wherein the subset to which a particular device belongs is determined based on an identifier of the device (abstract, figure 1, col. 8 lines 40-col. 10 lines 67, col. 17 lines 20-col. 18 lines 56, col. 45 lines 59-col. 48 lines 10); and

varying the timing with which the respective subsets of target devices respond to the message (col. 17 lines 49-54, col. 19 lines 7-col. 21 lines 51).

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16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 2-3, 5-6, 8-9, 11-12, 14-15, and 17-18 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over **Yuasa** U.S. Patent No. **6,082,238**, in view of **Iwamura et al.**, (hereinafter Iwamura) U.S. Patent No. **6,396,814**.

18. As to claim 2, **Yuasa** does not explicitly teach the invention as claimed; however, **Iwamura** teaches wherein determining a set of target devices to which the message is targeted comprises:

broadcasting the message over a network (figure 2, col. 13 lines 54-col. 15 lines 60);

receiving one or more responses to the message from target devices coupled to the network (figure 7, col. 1 lines 37-col. 2 lines 11);

estimating a number of devices coupled to the network (figures 1, 4, 7, col. 1 lines 37-col. 2 lines 11, col. 13 lines 54-col. 15 lines 15, col. 16 lines 63-col. 17 lines 29, col. 25 lines 6-50); and

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determining a number of subgroups based, at least in part, on the estimated number of devices coupled to the network (figures 1, 4, 7, col. 1 lines 37-col. 2 lines 11, col. 6 lines 1-12, col. 13 lines 54-col. 15 lines 15, col. 16 lines 63-col. 17 lines 29, col. 25 lines 6-50). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of **Yuasa and Iwamura** to have the determining step of target devices by broadcasting the message, receiving one or more responses, estimating a number of devices and determining a number of subgroups because it would have an efficient communications system that improves and reduces the traffic volume by dividing group into smaller group or subgroup and using broadcast method to particular subgroup.

19. As to claim 3, **Yuasa** does not explicitly teach the invention as claimed; however, **Iwamura** teaches wherein determining a set of target devices to which the message is targeted comprises:

multicasting the message to a subnet of a network (figure 2, col. 13 lines 54-col. 15 lines 60);

receiving one or more responses to the message from target devices of the subnet (figure 7, col. 1 lines 37-col. 2 lines 11);

estimating a number of devices in the subnet (figures 1, 4, 7, col. 1 lines 37-col. 2 lines 11, col. 13 lines 54-col. 15 lines 15, col. 16 lines 63-col. 17 lines 29, col. 25 lines 6-50); and

determining a number of subgroups based, at least in part, on the estimated number of devices in the subnet (figures 1, 4, 7, col. 1 lines 37-col. 2 lines 11, col. 13 lines 54-col. 15 lines 15, col. 16 lines 63-col. 17 lines 29, col. 25 lines 6-50). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of **Yuasa and Iwamura** to have the determining step of target devices by multicasting the message, receiving one or more responses, estimating a number of devices and determining a number of subgroups because it would have an efficient communications system that improves and reduces the traffic volume by dividing group into smaller group or subgroup and using multicast method to particular subgroup.

20. Claims 5-6, 8-9, 11-12, 14-15, and 17-18 have similar limitations as claims 2-3; therefore, they are rejected under the same rationale.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Ha Nguyen, whose telephone number is (703) 305-7447. The examiner can normally be reached Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam, can be reached at (703) 308-6662.

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications.

Thu Ha Nguyen

November 10, 2003


HOSAIN ALAM
SUPERVISORY PATENT EXAMINER